# THE CITY OF REDMOND
# Tenant Improvement Submittal Requirements

## A. FEES DUE AT TIME OF PERMIT APPLICATION

The following non-refundable fees will be collected at the time of application for all tenant improvement projects. Please refer to the sheet, Commercial/Multi-Family Building Permit Fees for additional information.

1. Building Plan Check Fee
2. Energy Code Plan Check Fee
3. Fire Department Plan Check Fee
4. 3% Technology Surcharge Based on Total Permit Cost

## B. CODES

The City of Redmond currently enforces the following:

### National Codes

1. 2003 International Building Code (IBC)
2. 2003 International Residential Code (IRC)
3. 2003 International Mechanical Code (IMC)
4. 2003 International Fuel Gas Code (IFGC)
5. 2003 International Fire Code (IFC)
6. 2003 Uniform Plumbing Code (UPC)
7. 2003 International Property Maintenance Code (IPMC)
8. 2002 National Electric Code (NEC)
9. 1998 Accessible & Usable Buildings & Facilities (ICC/ANSI 117.1)

### Washington State Amendments

1. WAC 51-50 Washington State Building Code (IBC)
2. WAC 51-51 Washington State Building Code (IRC)
3. WAC 51-52 Washington State Mechanical Code (IMC)
4. WAC 51-54 Washington State Fire Code (IFC)
5. WAC 51-56 & 51-57 Washington State Plumbing Code & Standards (UPC)
6. WAC 51-11 Washington State Energy Code (WSEC)
7. WAC 51-13 Washington State Ventilation and Indoor Air Quality Code (WAVIAQ)
8. WAC 296-46B Electrical Safety Standards, Administration, and Installation

### Redmond Local Amendments and Regulations

1. Redmond Municipal Code Title 15 Buildings and Construction
   - Chapter 15.06 - Fire Code
   - Chapter 15.08 - Building Code
   - Chapter 15.10 - Property Maintenance Code
   - Chapter 15.12 - Electrical Code
   - Chapter 15.14 - Mechanical Code
   - Chapter 15.16 - Plumbing Code
   - Chapter 15.18 - Energy Code
   - Chapter 15.20 - Ventilation and Indoor Air Quality Code
2. Redmond Community Development Guide
3. Redmond Fire Department Standards

### C. CITY OF REDMOND DESIGN REQUIREMENTS

| | |
|---|---|
| Design Wind Speed: | 85 mph (IBC Figure 1609) |
| Ground Snow Load: | 15 psf (IBC Figure 1608.2) |
| Rain on Snow Surcharge: | 5 psf added to flat roofs if slope is <1/2" (IBC 1608.3.4 & ASCE 7-02 Sec.7-10) |
| Seismic Zone: | This is site specific for buildings designed under the IBC (IBC 1615 & 1616) |
| Rainfall: | 2 inches/hour for roof drainage design |
| Frost Line Depth: | 12 inches |
| Soil Baring Capacity: | 1,500 ppsf unless a Geo-Technical report is provided (IBC Table 1804.2) |

### D. PLANS AND DRAWINGS

**Submit two (2) complete sets of drawings and plans.** Drawings and plans must be submitted on minimum 18"x24", or maximum 30"x42" paper. All sheets are to be the same size and sequentially labeled. Plans are required to be clearly legible, with scaled dimensions, in indelible ink, blue line, or other professional media. Plans will not be accepted that are marked preliminary or not for construction, that have red lines, cut and paste details or those that have been altered after the design professional has signed the plans.

**Please Note:** A separate submittal of plans is required for each building or structure.

# DETAILED SUBMITTAL REQUIREMENTS

Mark each box to designate that the information has been provided.
Please submit this checklist as part of your submittal documents.

### A. ❒ SITE PLAN – REQUIRED WITH ALL SUBMITTALS

(May be included as part of the Architectural Drawing Cover Sheet)

1. Drawing shall be prepared at a scale not to exceed 1"=20 feet.
2. Show building outline and all exterior improvements.
3. Provide property legal description and show property lines.
4. Provide dimensions from the property lines to a minimum of two building corners (or two identifiable locations for irregular plan shapes).
5. Show building set backs, easements and street access locations.
6. Indicate north direction.
7. Indicate finish floor elevation for the first level.
8. Provide a topographical map of the existing grades and the proposed finished grades with maximum five feet elevation contour lines.
9. Show the location of all existing underground utilities, including water, sewer, gas and electrical.
10. Flood hazard areas, Floodways, and design flood elevations as applicable.

### B. ❒ ARCHITECTURAL DRAWINGS

#### 1. ❒ Cover Sheet

a) Building Information

1) Specify model code information.
2) Construction type.
3) Number of stories and total height in feet.
4) Building square footage (per floor and total).
5) IBC Occupancy Type (show all types by floor and total).
6) Mixed-use ratio (if applicable).
7) Occupant load calculation (show by occupancy type and total).
8) List work to be performed under this permit.

b) Design Team Information

1) Design Professional in Responsible Charge
2) Architect(s)
3) Structural Engineer(s) (if applicable)
4) Owner
5) Developer
6) Any Other Design Team Members

**2. ❒Floor Plan**

a) Plan view 1/8-inch minimum scale - Details a minimum of 1/4-inch scale.
b) Plans must show the entire tenant space.
c) Specify the use of each room/area.
d) Provide an occupant load calculation on the floor plan.(on every floor,in all rooms and spaces)
e) Show **ALL** exits on the plans; include new, existing or eliminated.
f) Show all Barrier-Free information on the drawings
g) Show the location of all permanent rooms, walls and shafts.
h) Note the uses in the adjacent tenant spaces, if applicable.
i) Provide a door and door hardware schedule.
j) Show the location of all new walls, doors, windows, etc.
k) Provide details and assembly numbers for any fire resistive assemblies.
l) Indicate on the plans all rated walls, doors, windows and penetrations.
m) Provide a legend that distinguishes existing walls, walls to be removed and new walls.

**3. ❒Reflected Ceiling Plan**

a) Plan view 1/8-inch minimum scale - Details a minimum of 1/4-inch scale.
b) Provide ceiling construction details.
c) Provide suspended ceiling details complying with IBC 803.9.1.1, if applicable. Show seismic bracing details.
d) Show the location of all emergency lighting and exit signage.
e) Detail the seismic bracing of the fixtures.
f) Include a lighting fixture schedule.

**4. ❒Framing Plan**

a) Specify the size, spacing, span and wood species or metal gauge for all stud walls.
b) Indicate all wall, beam and floor connections.
c) Detail the seismic bracing for all walls.
d) Include a stair section showing rise, run, landings, headroom, handrail and guardrail dimensions, if applicable.

**5. ❒Storage Racks** (if applicable**)**

a) Structural calculations are required for seismic bracing of storage racks eight feet or greater in height.
b) Under eight feet, show a positive connection to floor or walls.

**NOTE**: High pile storage shall meet the requirements of current International Building and Fire Codes.

## C. ❒SPECIAL INSPECTION

1. Where special inspection is required by IBC 1704, the registered design professional in responsible charge shall prepare a special inspection program that will be submitted to the City of Redmond and approved prior to issuance of the building permit to comply with IBC 106.1. A copy of the **Special Inspection Requirement** form must be submitted.

## D. ❒WASHINGTON STATE ENERGY CODE

1. Two (2) completed 2003 Washington State Non-Residential Energy Code **Envelope Summary** forms.

## E. ❒ OCCUPANT'S STATEMENT OF INTENDED USE

1. The **Occupant's Statement of Intended Use** form shall be completely filled out and may require the submittal of a Hazardous Materials Inventory Statement (HMIS). Contact the Redmond Fire Prevention Bureau for additional information.

The Building Permit does not include any mechanical, electrical, plumbing, or fire sprinkler/alarm work. **These permits are issued separately.** Mechanical, electrical, plumbing, or fire sprinkler/alarm permits require a separate permit application and may also require a separate plan review.

Please note that any tenant improvement work in a space that involves food handling or preparation requires King County Health Department approval **before the permit can be issued**. You must provide the Permit Center a copy of the approval letter or the approved plans. Contact the King County Health Department at 206-296-9741 with any questions or for more information.

An intake appointment is required for all large Tenant Improvement Building Permit Applications. To determine if your project requires an intake appointment, to schedule an appointment or to ensure that you have the most current information, please contact the City of Redmond Permit Center at 425-556-2473 or by e-mail to permittech@redmond.gov.

Visit our website at http://www.redmond.gov/insidecityhall/planning/planning.asp.

**Applications delivered by courier or mail will not be accepted.**

**Incomplete applications will not be accepted.**

I acknowledge that all items designated as submittal requirements must accompany my Building Permit Application to be considered a complete submittal.

Signature: _____ Date: _____
(Owner/Owner's Representative)

Company: _____ Phone #: _____

# THE CITY OF REDMOND
# Special Inspection Requirements

In accordance to Section 1701 and State amended Section 1702 of the current adopted Uniform Building Code, the ***owner***, the ***engineer of record***, or ***architect of record*** acting as the owner's agent, is required to hire an independent testing/inspection agency to perform required special inspections.

The independent agency hired to perform the duties of special inspection is required to be a registered agency with Washington Association of Building Officials (WABO), under the Special Inspection Registration Program (SIRP) Standard No. 306.

The testing agency shall complete the attached forms and submit them to the Building Division prior to issuance of the building permit. For projects requiring continuous inspection, the agency shall submit the name and qualifications of the individual(s) assigned to the project. The inspectors assigned to any project within the City shall be currently registered with W.A.B.O., and certified for the disciplines assigned.

## A. Contractor's Responsibilities

### 1. Notify the agency

The contractor is responsible for notifying the inspection agency in sufficient time for scheduling personnel to perform required inspections.

### 2. Provide access to City of Redmond approved plans

The approved City plans shall be readily accessible at the job site.

### 3. Retaining special inspection reports at the job site

The contractor is also responsible for retaining at the job site all special inspection records submitted by the special inspector, and providing these records for review by the Building Department's inspector upon request.

## B. Duties of the Special Inspector

### 1. Observe work

The inspector shall observe the work for compliance with the City approved (stamped) plans, specifications, and applicable provisions of the UBC. The architect/engineer's reviewed shop drawings, and/or placement drawings, may be used only as an aid to inspections.

***Continuous Special Inspection*** - Means the same inspector is on site day to day observing the work requiring special inspections. Sometime referred to as the Resident Inspector, etc.

***Periodic Special Inspection*** - Some inspections may be made on a periodic basis to satisfy the requirements of continuous inspection, provided these periodic scheduled inspections are performed as outlined in the project plans and specifications, and approved by the Building Official.

**2. Report non-conforming items**

The inspector shall bring non-conforming items to the immediate attention of the contractor, and note all such items in the daily report. If any item is not resolved in a timely manner and is about to be incorporated in the work, the special inspector shall immediately notify the Building Department, the engineer or architect, his/her office, and post a discrepancy notice.

**3. Furnish daily reports**

The special inspector shall complete and sign a daily report for each day's inspections. The daily reports shall remain at the job site with the contractor for the Building Department's inspector. The reports shall include the following:

*a. Description of the inspections, with locations and tests performed.*
*b. Listing any non-conforming items.*
*c. Include how items were resolved or unresolved.*
*d. List any changes or corrections to non-conforming issues authorized by the engineer, architect, or City building inspectors.*

**4. Furnish weekly reports**

The inspection agency shall furnish weekly reports of the tests and inspections performed directly to the Building Department, project engineer, architect, and/or others as designated.

**5. Furnish final report**

The inspection agency shall submit a final signed report to the Building Department stating that all items requiring special inspections and testing were fulfilled, all discrepancies were corrected or resolved, and all work requiring special inspections is in conformance with the approved design drawings and specifications.

Include any items unresolved or discrepancies in coverage (i.e., missed inspections, periodic inspections when continuous was required, etc.) shall be specifically itemized in this report.

## C. City's Responsibilities

**1. To verify compliance**

The City is required to oversee the implementation of UBC Section 1701, 1702 and the WABO - SIRP Standards 306.

**2. Approve special inspections**

The Building Department shall approve all special inspectors and special inspection requirements.

**3. Monitor special inspections**

Work requiring special inspections, and the performance of special inspectors, shall be monitored by the Building Department's inspector. The cities approval must be obtained prior to placement of concrete or other similar activities in addition to that of the special inspector.

**4. Issue Certificate of Occupancy**

The Building Department will only issue a Certificate of Occupancy after all special inspection reports and the final report, have been submitted and accepted.

## D. Owner Responsibilities

The owner, the engineer, or architect of record acting as the owner's agent, shall fund special inspection services. The owner is responsible for seeing that these requirements are met.

## E. Engineer or Architect of Record Responsibilities

The engineer, or architect of record, shall include special inspection requirements and specifications on the plans. Provide structural observation Per Section 1702 as ammended by the Wash. State.

# ACKNOWLEDGMENTS

**I have read and agree to comply with the terms and conditions of this agreement.**

**Owner/ Agent:**_____ **By:**_____ **Date:**_____

**Contractor:**_____ **By:**_____ **Date:**_____

**Inspection Agency:**_____ **By:**_____ **Date:**_____

**Project Engineer/ Architect of Record:**_____ **By:**_____ **Date:**_____

**Return this original agreement along with the attached form to:**

**Building Division**
**City of Redmond Permit Center**
**15670 NE 85th Street**
**P.O. Box 97010**
**Redmond, Washington, 98073-9710**

# THE CITY OF REDMOND
## Special Inspection Agency Information Form

PROJECT _____ PERMIT # _____

ADDRESS _____ DATE _____

TESTING AGENCY _____ PHONE # _____

ADDRESS _____ CITY _____ ZIP _____

ASSIGNED INSPECTOR _____

ENGINEER OF RECORD _____ COMPANY _____

ADDRESS _____ CITY _____ ZIP _____

## Check Required Special Inspections per Uniform Building Code, Section 1701:

(Indicate continuous (C) or periodic (P) special inspection requirement in categories below)

___ 1. Reinforced concrete - concrete over 2500 psi

___ 2. Bolts installed in concrete

___ 3. Special moment-resisting concrete frame

___ 4. Reinforcing steel and prestressing tendons

___ 5. Structural welding

___ 6. High strength bolting

___ 7. Structural masonry

___ 8. Reinforced gypsum concrete

___ 9. Insulating concrete fill

___ 10. Spray-applied fire-resistive materials

___ 11. Piling, drilled piers , and caissons

___ 12. Shotcrete

___ 13. Special grading, excavation, and filling

___ 14. Smoke-control system

___ 15a. Expansion and Adhesive Anchors

___ 15b. Soil nailing, concrete tiebacks

___ 15c. Other inspections as required by the Engineer or the Building Official.

_____

CITY OF REDMOND 2003 Washington State Energy Code

# Envelope Summary — Climate Zone 1 — ENV-SUM

2003 Washington State Energy Code Compliance Forms Revised June 2002 KJM

| **Project Info** | Project Address | Date |
|---|---|---|
| | | For Building Department Use |
| | | |
| | Applicant Name: | |
| | Applicant Address: | |
| | Applicant Phone: | |

| **Project Description** | ☐ New Building ☐ Addition ☐ Alteration ☐ Change of Use |
|---|---|

| **Compliance Option** | ☐ Prescriptive ☐ Component Performance (See Decision Flowchart (over) for qualifications) ☐ ENVSTD 2.1 (4.0 not acceptable) ☐ Systems Analysis |
|---|---|

| **Space Heat Type** | ◯ Electric resistance ◯ All other (see over for definitions) |
|---|---|
| **Glazing Area Calculation** Note: Below grade walls may be included in the Gross Exterior Wall Area if they are insulated to the level required for opaque walls. | Total Glazing Area (rough opening) (vertical & overhd) divided by Gross Exterior Wall Area times 100 equals **% Glazing**<br>Electronic version: these values are automatically taken from ENV-UA-1.<br>, X 100 = |
| **Concrete/Masonry Option** | ◯ yes ◯ no Check here if using this option and if project meets all requirements for the Concrete/Masonry Option. See Decision Flowchart (over) for qualifications. Enter requirements for each qualifying assembly below. |

| **Envelope Requirements** (enter values as applicable) | |
|---|---|
| ***Fully heated/cooled space*** | |
| | *Minimum Insulation R-values* |
| Roofs Over Attic | |
| All Other Roofs | |
| Opaque Walls[1] | |
| Below Grade Walls | |
| Floors Over Unconditioned Space | |
| Slabs-on-Grade | |
| Radiant Floors | |
| | *Maximum U-factors* |
| Opaque Doors | |
| Vertical Glazing | |
| Overhead Glazing | |
| | *Maximum SHGC (or SC)* |
| Vertical/Overhead Glazing | |

| ***Semi-heated space***[2] | |
|---|---|
| | *Minimum Insulation R-values* |
| Roofs Over Semi-Heated Spaces[2] | |

1. Assemblies with metal framing must comply with overall U-factors
2. Refer to Section 1310 for qualifications and requirements

| **Opaque Concrete/Masonry Wall Requirements** | |
|---|---|
| Insulation on interior - maximum U-factor is 0.19 | |
| Insulation on exterior or integral - maximum U-factor is 0.25 | |
| If project qualifies for Concrete/Masonry Option, list walls with HC ≥ 9.0 Btu/ft²•°F below (other walls must meet Opaque Wall requirements). Use descriptions and values from Table 20-5b in the Code. | |
| **Wall Description** (including insulation R-value & position) | **U-factor** |
| | |
| | |
| | |
| | |
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| | |

Notes:

# Envelope Summary (back) Climate Zone 1 ENV-SUM

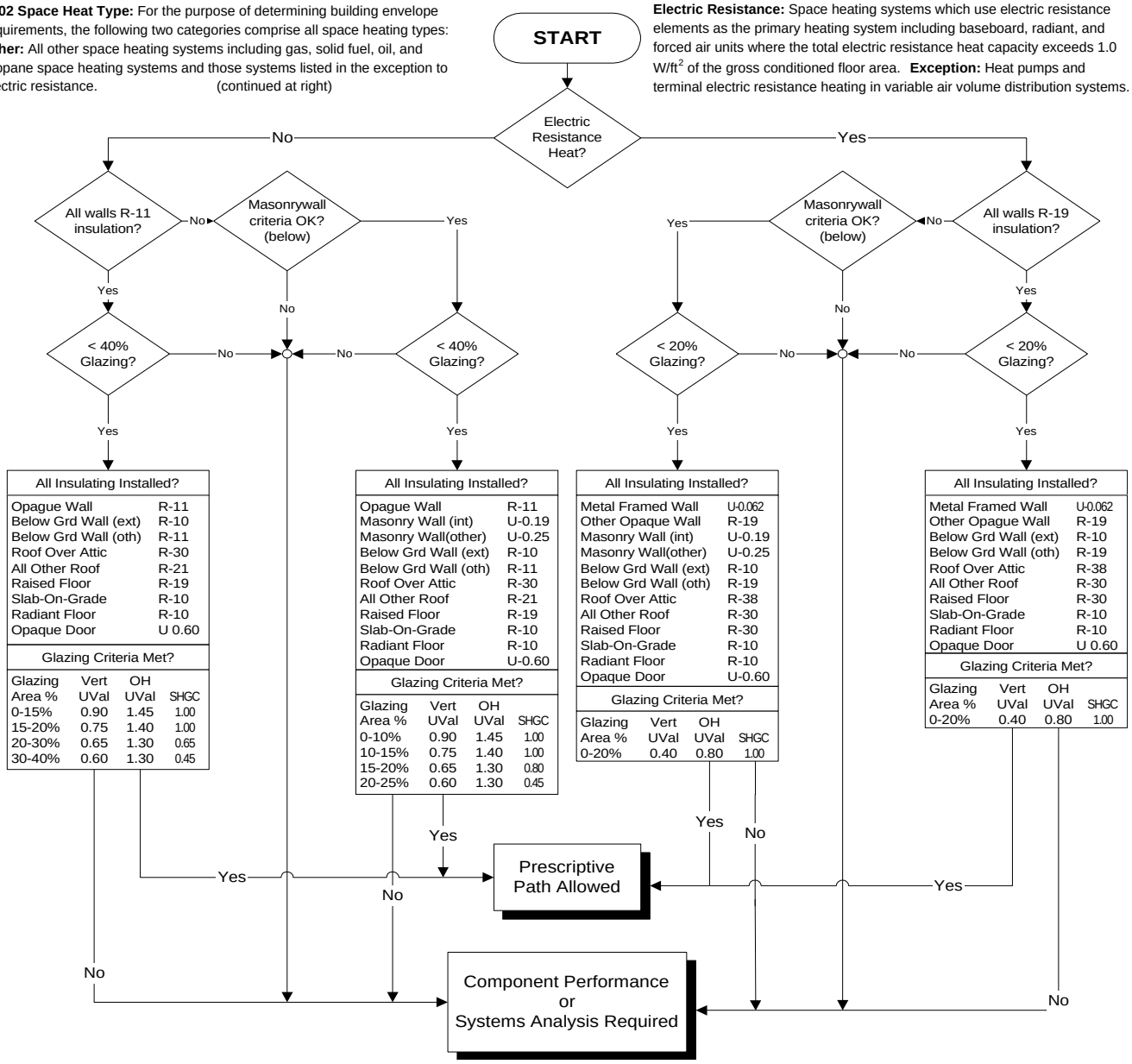


## Decision Flowchart
**for Prescriptive Option**

Use this flowchart to determine if project qualifies for the optional Prescriptive Option. If not, either the Component Performance or Systems Analysis Options must be used.

**1302 Space Heat Type:** For the purpose of determining building envelope requirements, the following two categories comprise all space heating types: **Other:** All other space heating systems including gas, solid fuel, oil, and propane space heating systems and those systems listed in the exception to electric resistance. (continued at right)

**Electric Resistance:** Space heating systems which use electric resistance elements as the primary heating system including baseboard, radiant, and forced air units where the total electric resistance heat capacity exceeds 1.0 W/ft$^2$ of the gross conditioned floor area. **Exception:** Heat pumps and terminal electric resistance heating in variable air volume distribution systems.




| Concrete/Masonry Option* | Wall Heat Capacity (HC) | | | |
|---|---|---|---|---|
| Assembly Description | Assy.Tag | HC** | Area (sf) | HC x Area |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | Totals | | |
| | | Area weighted HC: divide total of (HC x area) by Total Area | | |

*If the area weighted heat capacity (HC) of the total above grade wall is a minimum of 9.0, the Concrete Masonry Option may be used.
**For framed walls, assume HC=1.0 unless calculations are provided; for all other walls, use Section 1009.

CITY OF REDMOND 2003 Washington State Energy Code

# Envelope UA Calculations Climate Zone1 ENV-UA

2003 Washington State Energy Code Compliance Forms Revised June 2002 KJM

| Project Address | | Date |
|---|---|---|
| **Space Heat Type** | ◯ Electric resistance ◯ All other | For Building Department Use |
| **Glazing Area** as % gross exterior wall area | Prop. / Max.Target | |
| **Concrete/Masonry Option** | ◯ Yes ◯ No | |

Notes: If glazing area exceeds maximum allowed in Table, then calculate adjusted areas on back (over). If Concrete/Masonry Option is used, Target U-factors, SHGC and Glazing % will be different than shown below. Refer to Table 13-1 for correct values.

| | Building Component<br>List components by assembly ID & page # | Proposed UA<br>U-factor x Area (A) = UA (U x A) | Target UA<br>U-factor x Area (A) = UA (U x A) |
|---|---|---|---|
| Vertical Glazing | U= Plan ID:<br>U= Plan ID:<br>U= Plan ID:<br>U= Plan ID:<br>U= Plan ID:<br>U= Plan ID: | | Glazing % / Electric Resist. / Other Heating<br>0-15% 0.40 0.90<br>>15-20% 0.40 0.75<br>>20-30% see note above 0.60<br>>30-40% see note above 0.50<br>(see Table 13-1 for Conc/Masonry values) |
| Overhead Glazing: Over Attics | U= Plan ID:<br>U= Plan ID:<br>U= Plan ID:<br>U= Plan ID: | | Glazing % / Electric Resist. / Other Heating<br>0-15% 0.80 1.45<br>>15-20% 0.80 1.40<br>>20-30% see note above 1.30<br>>30-40% see note above 1.25<br>(see Table 13-1 for Conc/Masonry values) |
| Overhead Glazing: Oth.Roofs | U= Plan ID:<br>U= Plan ID:<br>U= Plan ID:<br>U= Plan ID: | | |
| Opaque Doors | U= Plan ID:<br>U= Plan ID:<br>U= Plan ID: | | Electric Resist. / Other Heating<br>0.60 0.60 |
| Roofs Over Attics | R= Plan ID:<br>R= Plan ID:<br>R= Plan ID: | | Electric Resist. / Other Heating<br>0.031 0.036 |
| Other Roofs | R= Plan ID:<br>R= Plan ID:<br>R= Plan ID: | | Electric Resist. / Other Heating<br>0.034 0.050 |
| Opaque Walls* | R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>**Note: sum of Target Areas here should equal Target Opaque Wall Area (see back) | | **<br>**<br>**<br>Electric Resist. / Other Heating<br>Ordinary 0.062 0.14<br>Conc(int) 0.19 0.19<br>Conc(oth) 0.25 0.25 |
| Below Grade Walls | R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>Note: if insulated to levels required for opaque walls, list above with opaque walls | | Electric Resist. / Other Heating<br>0.062 0.14 |
| Floors Over Uncond. Sp | R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>R= Plan ID: | | Electric Resist. / Other Heating<br>0.029 0.056 |
| Slab-on-grade Radiant | R= Plan ID:<br>R= Plan ID:<br>R= Plan ID:<br>R= Plan ID: | | Electric Resist. / Other Heating<br>F=0.54 F=0.54<br>(see Table 13-1 for radiant floor values) |
| | **Totals** | | **Totals** |

*For CMU walls, indicate core insulation material.

For compliance:

1) Proposed Total Area shall equal Target Total Area, and 2) Proposed Total UA shall not exceed Target Total UA.

# Climate Zone 1 ENV-SHGC



| | Glazing<br>List components by assembly ID & page # | Proposed SHGC<br>SHGC* | x Area (A) | = SHGC x A | Target SHGC<br>SHGC | x Area (A) | = SHGC x A |
|---|---|---|---|---|---|---|---|
| Glazing | ID: | | | | | | |
| | ID: | | | | Glazing % | Electric Resist. | Other Heating |
| | ID: | | | | 0-20% | 1.00 | 1.00 |
| | ID: | | | | >20-30% | not allowed | 0.65 |
| | ID: | | | | >30-40% | not allowed | 0.45 |
| | ID: | | | | (see Table 13-1 for Conc/Masonry values) | | |
| | **Totals** | | | | **Totals** | | |

*Note: Manufacturer's SC may be used in lieu of SHGC.

For compliance: Proposed total SHGC x A shall not exceed Target total SHGC x A

**NOTE:** Since 1997 SHGC compliance for vertical and overhead glazing is allowed to be calculated together.

## Target Area Adjustment Calculations

If the total amount of glazing area as a % of gross exterior wall area (calculated on ENV-SUM1) exceeds the maximum allowed in Table 13-1, then this calculation must be submitted Use the resulting areas in the Target UA and SHGC calculations above.

Proposed Areas: Numbered values are used in calculations below.

| | Roofs over Attics | Other Roofs | Walls |
|---|---|---|---|
| Glazing Area | OG= | OG= | VG= |
| Opaque Area | | | |

Note:
OG = overhead glazing
VG = vertical glazing

Gross Exterior Wall Area ( ) x Max Glazing Area (Table 13-1) ( ) ÷ 100 = Maximum Target Glazing Area ( )

( ) – Target OG Area in Roofs over Attics ( ) ⇳ lesser = Max OG Remaining ( ) – Target OG Area in Other Roofs ( ) ⇳ lesser = Target VG Area ( )

For Target OG's, the lesser values are used both here and below.

| | Proposed Opaque Area | | Proposed OG Area | | Target OG Area | | Target Opaque Area |
|---|---|---|---|---|---|---|---|
| Roofs over Attics | | + | | – | | = | |
| Other Roofs | | + | | – | | = | |

| | Proposed Opaque Area | | Proposed VG Area | | Target VG Area | | Target Opaque Area |
|---|---|---|---|---|---|---|---|
| Walls | | + | | – | | = | |

Target Areas OK

Note: If there is more than one type of wall, the Target VG Area may be distributed among them, and separate Target Opaque Areas found.
If the Target Areas for Opaque Walls listed on the front must equal the total calculated here.

Target values in shaded boxes are used in the applicable Target UA calculations on the front.
Target VG Area and Total Target OG Area are also used in the applicable Target SHGC calculations above.

# Building Permit Plans Checklist ENV-CHK

2003 Washington State Energy Code Compliance Forms Revised June 2002 KJM

| Project Address | Date |
|---|---|

The following information is necessary to check a building permit application for compliance with the building envelope requirements in the Washington State Nonresidential Energy Code.

| Applicability (yes, no, n.a.) | Code Section | Component | Information Required | Location on Plans | Building Department Notes |
|---|---|---|---|---|---|
| **GENERAL REQUIREMENTS (Sections 1301-1314)** | | | | | |
| | 1301 | Scope | Unconditioned spaces identified on plans if allowed | | |
| | 1302 | Space heat type: | If "Other", indicate on plans that electric resistance heat is not allowed | | |
| | 1310.2 | Semi-heated spaces | Semi-heated spaces identified on plans if allowed | | |
| | 1311 | Insulation | | | |
| | 1311.1 | Insul. installation | Indicate densities and clearances | | |
| | 1311.2 | Roof /ceiling insul. | Indicate R-value on roof sections for attics and other roofs;<br>Indicate clearances for attic insulation;<br>Indicate baffles if eave vents installed;<br>Indicate face stapling of faced batts | | |
| | 1311.3 | Wall insulation | Indicate R-value on wall sections;<br>Indicate face stapling of faced batts;<br>Indicate above grade exterior insulation is protected;<br>Indicate loose-fill core insulation for masonry walls as necess;<br>Indicate heat capacity of masonry walls if masonry option is used or if credit taken in ENVSTD; | | |
| | 1311.4 | Floor insulation | Indicate R-value on floor sections;<br>Indicate substantial contact with surface;<br>Indicate supports not more than 24" o.c.;<br>Indicate that insulation does not block airflow through foundation vents | | |
| | 1311.5 | Slab-on-grade floor | Indicate R-value on wall section or foundation detail;<br>Indicate slab insulation extends down vertically 24" from top;<br>Indicate above grade exterior insulation is protected | | |
| | 1311.6 | Radiant floor | Indicate R-value on wall section or foundation detail;<br>Indicate slab insulation extends down vertically 36" from the top;<br>Indicate above grade exterior insulation is protected;<br>Indicate insulation also under entire slab where req'd. by Official | | |
| | 1312 | Glazing and doors | Provide calculation of glazing area (including both vertical vertical and overhead) as percent of gross wall area | | |
| | 1312.1 | U-factors | Indicate glazing and door U-factors on glazing and door schedule (provide area-weighted calculations as necessary);<br>Indicate if values are NFRC or default, if values are default then specify frame type, glazing layers, gapwidth, low-e coatings, gas fillings | | |
| | 1312.2 | SHGC & SC | Indicate glazing solar heat gain coefficient or shading coefficient on glazing schedule (provide area-weighted calculations as necessary) | | |
| | 1313 | Moisture control | | | |
| | 1313.1 | Vapor retarders | Indicate vapor retarders on warm side | | |
| | 1313.2 | Roof/ceiling vap.ret. | Indicate vapor retarder on roof section;<br>Indicate vap. retard. with sealed seams for non-wood struc. | | |
| | 1313.3 | Wall vapor retarder | Indicate vapor retarder on wall section | | |
| | 1313.4 | Floor vapor retarder | Indicate vapor retarder on floor section | | |
| | 1313.5 | Crawl space vap. ret. | Indicate six mil black polyethylene overlapped 12" on ground | | |
| | 1314 | Air leakage | | | |
| | 1314.1 | Bldg. envel. sealing | Indicate sealing, caulking, gasketing, and weatherstripping | | |
| | 1314.2 | Glazing/door sealing | Indicate weatherstripping | | |
| | 1314.3 | Assemb. as ducts | Indicate sealing, caulking and gasketing | | |
| **PRESCRIPTIVE/COMPONENT PERFORMANCE (Sections 1320-23 or 1330-34)** | | | | | |
| | | Envelope Sum. Form | Completed and attached.<br>Provide component performance worksheet if necessary<br>Provide ENVSTD 2.1 screen 1 output if necessary | | |

**If "no" is shown for any question, provide explanation:**

## Envelope - General Requirements

**1311 Insulation**

**1311.1 Installation Requirements:** All insulation materials shall be installed according to the manufacturer's instructions to achieve proper densities, maintain clearances, and maintain uniform R-values. To the maximum extent possible, insulation shall extend over the full component area to the intended R-value.

**1311.2 Roof/Ceiling Insulation:** Open-blown or poured loose-fill insulation may be used in attic spaces where the slope of the ceiling is not more than 3/12 and there is at least thirty inches of clear distance from the top of the bottom chord of the truss or ceiling joist to the underside of the sheathing at the roof ridge. When eave vents are installed, baffling of the vent openings shall be provided so as to deflect the incoming air above the surface of the insulation.

Where lighting fixtures are recessed into a suspended or exposed grid ceiling, the roof/ceiling assembly shall be insulated in a location other than directly on the suspended ceiling.

> **Exception:** Type IC rated recessed lighting fixtures.

Where installed in wood framing, faced batt insulation shall be face stapled.

**1311.3 Wall Insulation:** Exterior wall cavities isolated during framing shall be fully insulated to the levels of the surrounding walls. When installed in wood framing, faced batt insulation shall be face stapled.

Above grade exterior insulation shall be protected.

**1311.4 Floor Insulation:** Floor insulation shall be installed in a permanent manner in substantial contact with the surface being insulated. Insulation supports shall be installed so spacing is not more than twenty-four inches on center. Installed insulation shall not block the airflow through foundation vents.

**1311.5 Slab-On-Grade Floor:** Slab-on-grade insulation installed inside the foundation wall shall extend downward from the top of the slab a minimum distance of twenty-four inches or to the top of the footing, whichever is less. Insulation installed outside the foundation shall extend downward a minimum of twenty-four inches or to the frostline, whichever is greater. Above grade insulation shall be protected.

> **Exception:** For monolithic slabs, the insulation shall extend downward from the top of the slab to the bottom of the footing.

**1311.6 Radiant Floors (on or below grade):** Slab-on-grade insulation shall extend downward from the top of the slab a minimum distance of thirty-six inches or downward to the top of the footing and horizontal for an aggregate of not less than thirty-six inches.

If required by the building official where soil conditions warrant such insulation, the entire area of a radiant floor shall be thermally isolated from the soil. Where a soil gas control system is provided below the radiant floor, which results in increased convective flow below the radiant floor, the radiant floor shall be thermally isolated from the sub-floor gravel layer.

**1312 Glazing and Doors**

**1312.1 Standard Procedure for Determination of Glazing and Door U-Factors:** U-factors for glazing and doors shall be determined, certified and labeled in accordance with Standard RS-31 by a certified independent agency licensed by the National Fenestration Rating Council (NFRC). Compliance shall be based on the Residential or the Nonresidential Model Size.

Product samples used for U-factor determinations shall be production line units or representative of units as purchased by the consumer or contractor. Unlabeled glazing and doors shall be assigned the default U-factor in Section 2006.

**1312.2 Solar Heat Gain Coefficient and Shading Coefficient:** Solar Heat Gain Coefficient (SHGC), shall be determined, certified and labeled in accordance with the National Fenestration Rating Council (NFRC) Standard by a certified, independent agency, licensed by the NFRC.

> **Exception:** Shading coefficients (SC) shall be an acceptable alternate for compliance with solar heat gain coefficient requirements. Shading coefficients for glazing shall be taken from Chapter 27 of Standard RS-27 or from the manufacturer's test data.

**1313 Moisture Control**

**1313.1 Vapor Retarders:** Vapor retarders shall be installed on the warm side (in winter) of insulation as required by this section.

> **Exception:** Vapor retarder installed with not more than 1/3 of the nominal R-value between it and the conditioned space.

**1313.2 Roof/Ceiling Assemblies:** Roof/ceiling assemblies where the ventilation space above the insulation is less than an average of twelve inches shall be provided with a vapor retarder. Roof/ceiling assemblies without a vented airspace, where neither the roof deck nor the roof structure are made of wood, shall provide a continuous vapor retarder with taped seams.

> **Exception:** Vapor retarders need not be provided where all of the insulation is installed between the roof membrane and the structural roof deck.

**1313.3 Walls:** Walls separating conditioned space from unconditioned space shall be provided with a vapor retarder.

**1313.4 Floors:** Floors separating conditioned space from unconditioned space shall be provided with a vapor retarder.

**1313.5 Crawl Spaces:** A ground cover of six mil (0.006 inch thick) black polyethylene or approved equal shall be laid over the ground within crawl spaces. The ground cover shall be overlapped twelve inches minimum at the joints and shall extend to the foundation wall.

> **Exception:** The ground cover may be omitted in crawl spaces if the crawl space has a concrete slab floor with a minimum thickness of three and one-half inches.

**1314 Air Leakage**

**1314.1 Building Envelope:** The requirements of this section shall apply to building elements separating conditioned from unconditioned spaces. Exterior joints around windows and door frames, openings between walls and foundation, between walls and roof and wall panels; openings at penetrations of utility services through walls, floors, and roofs; and all other openings in the building envelope shall be sealed, caulked, gasketed, or weatherstripped to limit air leakage.

**1314.2 Glazing and Doors:** Doors and operable glazing separating conditioned from unconditioned space shall be weatherstripped. Fixed windows shall be tight fitting with glass retained by stops with sealant or caulking all around.

> **Exception:** Openings that are required to be fire resistant.

**1314.3 Building Assemblies Used as Ducts or Plenums**: Building assemblies used as ducts or plenums shall be sealed, caulked, and gasketed to limit air leakage.

# FIRE PREVENTION
# OCCUPANT'S STATEMENT OF INTENDED USE

(NOT REQUIRED FOR EXPEDITED BUILDING PERMITS)

City of Redmond WASHINGTON

Development #_____ Project #_____ Permit #_____

Project Name / Tenant _____

Site Address_____ Bldg/Unit/Suite _____

UBC Construction Type _____UBC Occupancy Type_____

Description of Use_____

Building Square Footage_____ Area of Construction_____

**Will there be any installation, modification or removal of the following? (Check all that apply.)**

- ❑ Automatic fire extinguishing systems
- ❑ Compressed gas systems
- ❑ Fire alarm and detection systems
- ❑ Fire pumps
- ❑ Flammable and combustible liquids (tanks, piping ect…)
- ❑ Hazardous materials
- ❑ High piled / rack storage
- ❑ Industrial ovens / furnace
- ❑ Private fire hydrants
- ❑ Spraying or dipping operations
- ❑ Standpipe systems
- ❑ Temporary membrane structures, tents (>200 sq. ft.) or canopies (>400 sq. ft.)

Provide details on any of the above checked items:

_____

_____

_____

_____

**Installation, changes, modifications or removal of any of the above may require additional submittals, information, or permits during the plan review or construction process.**

_____

Printed Name of Occupant/Agent

_____ _____

Signature of Occupant/Agent Date

**~ Location Address: 15670 NE 85th St. ~ Mailing Address: P.O. Box 97010 ~ Redmond, WA 98073-9710 ~**
**~ Inspection Requests: (425) 556-2232 ~ Inspection Fax: (425) 556-2272 ~**
**~ Plan Review General Phone: (425) 556-2246 ~ Plan Review Fax: (425) 556-2272 ~**
**~ General Email: fpdiv@ci.redmond.wa.us ~**

**CITY OF REDMOND**
**Permit Center**
15670 NE 85th Street
Redmond, WA 98052
(425) 556-2473
www.redmond.gov

| FOR STAFF USE ONLY | |
|---|---|
| **Development #:** _____ | **Date:** _____ |
| **Project #:** _____ | **App Expires:** _____ |
| **Permit:** _____ | **Accepted by:** _____ |
| **Type:** _____ | **Payment method:** _____ |

# Commercial/Multi-Family Permit Application

***Application and plans must be complete in order to be accepted for plan review.***

| | | |
|---|---|---|
| **Project Name/Tenant:** | | ***Value of Construction:** |
| **Site Address:** | | **Tax Parcel Number:** |
| General Location: | | Bldg, Unit, Suite Designation: |
| **Contact Person**: | | Phone: |
| Mailing Address: | City State/Zip: | Fax #: |
| Firm or Company Name: | | E-Mail Address: |
| **Contractor:** | | Phone: |
| Mailing Address: | City State/Zip: | Fax #: |
| State Contractor's License #: | Expiration Date: | City of Redmond Business License #: |
| **Design Professional:** | | Phone: |
| Mailing Address: | City State/Zip: | Fax #: |
| Firm or Company Name: | | E-Mail Address: |
| **Property Owner:** | | Phone: |
| Mailing Address: | City State/Zip: | Fax #: |
| **Lender Name:** | | Phone: |
| Mailing Address: | City State/Zip: | Fax #: |

**Description of work to be done (Please be specific)**:_____

_____

_____

_____

_____

**Construction Type of Building 2003 IBC:**

❒ Type I A ❒ Type II A ❒ Type III A ❒ Type IV ❒ Type V A ❒ Other _____

❒ Type I B ❒ Type II B ❒ Type III B ❒ Type V B

**Use or Occupancy Type(s):**_____

**Number of New Dwelling Units:**

_____

**Total Area of Construction (Sq. Ft.)**:_____

**Building Square Footage (new):** _____ **(existing):**_____ **(total):**_____

**Number of Stories (new):**_____ **(existing):** _____ **(total):**_____

**IBC Sprinkler Substitutions:**

❒ Area Increase ❒ Story Increase ❒ One-Hour Construction
❒ Unlimited Area ❒ Height Increase ❒ Other _____

**Will there be a Change of Building Code Use**? ❒ Yes ❒ No

**If Yes, State Existing Use(s):**_____ **Proposed Use(s):** _____

**Type of Work:**

❒ New Commercial Building ❒ Commercial Addition ❒ Tenant Improvement ❒ Rack Storage ❒ Other _____
❒ New Multi-Family Building ❒ Multi-Family Addition ❒ Multi-Family Alteration ❒ Reroofing

**Planning Department Information: (If Yes - Describe Below)**

1. Exterior Modifications to Building? ❒ Yes
2. Change of Land Use? (RCDG) ❒ Yes
3. Sensitive Areas On or Near Site? ❒ Yes
4. Is Permit a PRD / MPRD / PCD / MPCD? ❒ Yes
5. Building Generates Noise Above 35 dBA? ❒ Yes
6. Tree Removal Proposed? ❒ Yes
7. Mechanical Equipment Proposed? ❒ Yes
8. Additional Building Square Footage Proposed? ❒ Yes
9. Change in Number of Existing Parking Stalls? ❒ Yes
10. Reducing Landscaping Square Footage Proposed? ❒ Yes
11. Reroofing ❒ Yes

**Item # & Description:**_____

_____

_____

**Fire Department Information: (If Yes - Describe Below)**

1. Automatic Sprinkler System? ❒ Yes
2. Automatic Fire Alarm System? ❒ Yes
3. Standpipe System? ❒ Yes
4. Other Fire Protection System? ❒ Yes
5. High Pile or Rack Storage? ❒ Yes (Provide Rack LF_____ & Rack Height _____)
6. UPS or Storage Battery System? ❒ Yes
7. Flammable/Combustible Materials in Building? ❒ Yes
8. Hazardous Materials in Building? ❒ Yes
9. Hazardous Materials Management Plan Required? ❒ Yes

**Item # & Description:**_____

_____

_____

**Notes:**
#6 - Provide information on the quantity of battery electrolyte (if quantity equals or exceeds 100 gallons **UFC Article 64** shall apply).
#7 & 8 - If flammable/combustible or hazardous materials are used or stored in the building, provide a **Hazardous Materials Management Inventory and a Hazardous Materials Management Plan** *(Provide copies of all Material Safety Data Sheets)*

***Value of Construction –** The value of construction shall include the prevailing fair market value of all labor, materials and equipment, whether actually paid or not, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems, automatic sprinkler systems, other mechanical systems and other permanent work or permanent equipment, not including furnishings. The Building Official shall make the final determination of the value of construction as specified in Section 108.3 of the International Building Code.

**Expiration of Plan Review -** Applications for which no permit is issued within 180 days following the date of application shall expire and all fees paid shall be forfeited. Upon written request of the applicant, the Building Official may grant a 90-day extension to the Plan Review time as specified in Section 105.3.2 of the International Building Code. No application shall be extended for a period of more than 90 days.

***Building Owner or Authorized Agent:***

***Signature:***_____ ***Print Name:***_____ ***Date:***_____

Please visit our web site at: **http://www.redmond.gov/insidecityhall/planning/planning.asp**

# COMMERCIAL & MULTI-FAMILY BUILDING PERMIT FEES EFFECTIVE JULY 1, 2004

| UBC TABLE 1-A[1] | |
|---|---|
| **TOTAL VALUATION** | **FEE** |
| $1.00 to $500.00 | $23.50 |
| $501.00 to $2,000.00 | $23.50 for the first $500.00 plus $3.05 for each additional $100.00, or fraction thereof, to and including $2,000.00 |
| $2,001.00 to $25,000.00 | $69.25 for the first $2,000.00 plus $14.00 for each additional $1,000.00, or fraction thereof, to and including $25,000.00 |
| $25,001.00 to $50,000.00 | $391.25 for the first $25,000.00 plus $10.10 for each additional $1,000.00, or fraction thereof, to and including $50,000.00 |
| $50,001.00 to $100,000.00 | $643.75 for the first $50,000.00 plus $7.00 for each additional $1,000.00, or fraction thereof, to and including $100,000.00 |
| $100,001.00 to $500,000.00 | $993.75 for the first $100,000.00 plus $5.60 for each additional $1,000.00, or fraction thereof, to and including $500,000.00 |
| $500,001.00 to $1,000,000.00 | $3,233.75 for the first $500,000.00 plus $4.75 for each additional $1,000.00, or fraction thereof, to and including $1,000,000.00 |
| $1,000,000.00 and up | $5608.75 for the first $1,000,000.00 plus $3.65 for each additional $1,000.00, or fraction thereof |

1) **Determining Building Valuation:** The final determination of building valuation shall be made by the Building Official.

   a) **For New Construction or Increases in Square Footage:** The value used in computing fees, based on UBC Table 1-A adopted by Resolution No. 1189, is determined on the basis of the valuation per square foot using the Building Valuation Data. Determination of the project square footage is based on gross area, defined below.

   b) **For Remodel, Alteration or Tenant Improvement:** The value used in computing fees, based on UBC Table 1-A, is determined on the basis of the estimated current value of all labor and materials, whether actually paid or not, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems, automatic sprinkler systems, other mechanical systems and other permanent work or permanent equipment but not including furnishings.

2) **Gross Area:** The gross area, used in conjunction with the Building Valuation Data and other data to determine the valuation of a building project, means the total area of all floors, measured from the exterior face, outside dimensions or exterior column line of a building, including basements, cellars and balconies, but not including unexcavated areas. Where walls and columns are omitted in the construction of a building, such as an open shed or marquee, the exterior wall of the open side or sides, for the purpose of calculating gross area, will be the edge of the roof, including gutters.

[1] UBC Table 1-A is part of the *Uniform Building Code*™ Copyright 1997 Published by the International Conference of Building Officials. Adopted by Resolution No. 1189 - Effective July 1, 2004

3) **Plan Check Fee Deposit:** The Building, Energy, Engineering and Fire Department Plan Check fees are due in full at the time of application and are non-refundable.

4) **Electrical, Mechanical and Plumbing Permits:** Electrical, Mechanical and Plumbing permits are issued separately from the building permit. For information on these permits, see the individual applications and fee schedules.

| # | ITEM | FEE |
|---|---|---|
| 1 | Building Permit Fee* | 100% of UBC Table 1-A |
| 2 | Building Plan Check Fee* | An Additional 65% of UBC Table 1-A |
| 3 | Energy Plan Check Fee* | See Table Below |
| 4 | Fire Department Plan Check Fee* | See Table Below |
| 5 | Engineering Plan Check Fee*<br>(New Construction or Additions Only) | An Additional 120% of UBC Table 1-A |
| 6 | State Building Code Fee | $4.50 per Permit plus an additional<br>$2.00 for each multifamily dwelling unit after the first unit. |
| 7 | Capital Facilities Charge<br>(New Construction or Additions Only) | DETERMINED BY PUBLIC WORKS STORMWATER DIVISION |
| 8 | Impact Fees<br>(New Construction,<br>Additions or Change of Use Only) | FIRE, PARKS, TRANSPORTATION AND KING COUNTY<br>Each Organization, specific to the project, calculates fees. |

| ENERGY CODE PLAN CHECK FEE | |
|---|---|
| **NEW CONSTRUCTION:** | **FEE** |
| New Commercial Building | $112.29* |
| New Multi-Family Building | $112.29* **PLUS**<br>$22.46* for each additional unit |
| **TENANT IMPROVEMENT:** | |
| No Energy Code Change | $16.84* |
| 0 to 1,500 square feet | $33.69* |
| 1,501 to 3,000 square feet | $67.37* |
| 3,001 to 10,000 square feet | $134.75* |
| 10,001 to 25,000 square feet | $202.12* |
| 25,001 square feet and over | $336.87* |

***A 3% Technology Surcharge is applied as authorized by City Ordinance # 2090, and extended by Resolution # 1162 on December 3, 2002.**

| FIRE DEPARTMENT PLAN CHECK FEE | |
|---|---|
| **VALUATION BASED ON UBC TABLE 1-A** | **FEE** |
| $0 to $1,000 | $47.44* |
| $1,001 to $5,000 | $107.52* |
| $5,001 to $10,000 | $154.96* |
| $10,001 to $20,000 | $190.89* |
| $20,001 to $45,000 | $237.21* |
| $45,001 to $100,000 | $285.78* |
| $100,001 to $250,000 | $405.09* |
| $250,001 to $500,000 | $487.34* |
| $500,001 to $1,000,000 | $607.77* |
| $1,000,001 to $1,500,000 | $689.75* |
| $1,500,001 to $2,000,000 | $737.47* |
| $2,000,000 and up | $737.47* for the first $2,000.000 plus $60.08* for each additional $500,000 or fraction thereof over $2,000,000 |

| OTHER INSPECTIONS AND FEES | |
|---|---|
| Inspections outside of normal business hours (minimum charge-two hours) | $119.03 per hour |
| Reinspection fees | $104.15 per assessment |
| Inspections for which no fee is specifically indicated (minimum charge-two hours) | $104.15 per hour |
| Additional plan review required by changes, additions or revisions to plans (minimum charge-two hours) | $104.15 per hour* |
| Additional plan review required by Deferred Submittals (minimum charge-two hours) | $104.15 per hour* |
| For use of outside consultants for plan checking* and inspections, or both | Actual costs[2] |

***A 3% Technology Surcharge is applied as authorized by City Ordinance # 2090, and extended by Resolution # 1162 on December 3, 2002.**

***EFFECTIVE JULY 1, 2004***

[2] Actual costs include administrative and overhead costs.